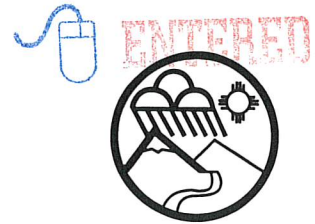




BILL RICHARDSON  
GOVERNOR

*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**

*Hazardous Waste Bureau*  
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RON CURRY  
SECRETARY

DERRITH WATCHMAN-MOORE  
DEPUTY SECRETARY

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

April 28, 2003

Dr. Inés Triay, Manager  
Carlsbad Field Office  
Department of Energy  
P.O. Box 3090  
Carlsbad, New Mexico 88221-3090

Dr. Steven Warren, President  
Washington TRU Solutions, LLC  
P.O. Box 2078  
Carlsbad, New Mexico 88221-5608

**RE: REJECTION OF CBFO RESPONSES TO NMED OBSERVER INQUIRIES FROM RFETS  
AUDIT A-03-03  
WIPP HAZARDOUS WASTE FACILITY PERMIT  
EPA I.D. NUMBER NM4890139088**

Dear Drs. Triay and Warren:

On April 10, 2003, NMED received responses from the Permittees to inquiries submitted by NMED observers attending the Rocky Flats Environmental Technology Site (RFETS) Audit A-03-03 on March 6, 2003. These inquiries identified NMED concerns regarding limitations of tentatively identified compound (TIC) evaluation at RFETS and the applicability of EPA Contract Laboratory Program (CLP) Functional Data Validation Guidelines to make data usability assessments. These original inquiries are attached to ensure the administrative record is complete.

Upon review of the Permittees' responses, NMED has determined that they are unacceptable for the reasons identified in the attached comments. Please provide revised responses that directly address the issues raised in the original observer inquiry forms and the attached comments. Although NMED received the final Audit Report for RFETS Audit A-03-03 on April 25, 2003, these issues must be resolved before NMED concludes that RFETS has adequately implemented the applicable characterization requirements of the WAP.

030448



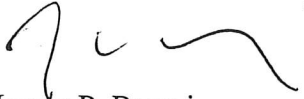
Drs. Triay and Warren

April 28, 2003

Page 2

If you have any questions regarding this matter, please contact me at (505) 428-2512.

Sincerely,



James P. Bearzi

Chief

Hazardous Waste Bureau

JPB:soz

Attachment 1: Original NMED inquiry forms dated March 6, 2003

Attachment 2: NMED comments on Permittees' responses to NMED inquiries

cc: Steve Zappe, NMED HWB  
Tracy Hughes, NMED OGC  
Chuck Noble, NMED OGC  
Laurie King, EPA Region 6  
Betsy Forinash, EPA ORIA  
Connie Walker, Trinity Engineering  
File: Red WIPP '03

Attachment 1

Original NMED inquiry forms dated March 6, 2003

# Observer Inquiry Form

Observer: STEVE ZAPPE

Date: 3/6/03

Tracking No. \_\_\_\_\_

Discussion of Request: NMED has a concern regarding  
limitation of TIC evaluation under the Permit.

Relevant CBFO documents are Clarification C40-00-065  
and Hotline Question 119. See attached memo.

ATL Response: \_\_\_\_\_

Observer: Accept Response \_\_\_\_\_ Do Not Accept Response \_\_\_\_\_  
(Provide Reason)

Inquiry Closed: \_\_\_\_\_

ATL

Date

The Permittees issued Clarification Number CAO-00-065, Rev. 2 "Determination of Tentatively Identified Compounds (TICS) (Section B3-1)", addressing the following question:

"2. Must the entire NIST Library be used for searches for TICs?"

The Permittees provided the following conclusion:

"2. No. Only those compounds that are listed as hazardous constituents in 40 CFR 261, Appendix VIII need to be included in the reference library. This library can be further reduced to include those compounds being sought by the analysis. This applies to totals analysis and headspace gas analysis. For example, headspace gas analysis need only use a subset of Appendix VIII that includes VOCs."

RFETS personnel posed a related question regarding TICs to the CBFO Hotline (ID Number 119) on September 18, 2000, asking if VOCs identified as TICs in the SVOC analysis (but not in the corresponding VOC analysis) should be excluded from being reported for the SVOC analysis, and whether they should be added to the VOC target analyte list. CBFO's response stated,

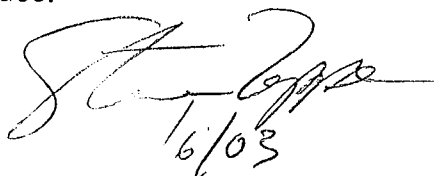
"... adding the... VOC TICs to the SVOC target analyte list is not appropriate since the VOC TICs are not listed/approved for Method 8270."

NMED disputes the conclusion to Clarification CAO-00-065, Question 2, to the extent that the Permit does not explicitly provide for reducing the compound list for TIC consideration "to include [only] those compounds being sought by the analysis." Permit Attachment B3 clearly requires further investigation of TICs if they meet the following three conditions:

- 1) they meet the SW-846 identification criteria,
- 2) they are reported in 25 percent of all waste containers sampled from a given waste stream, and
- 3) they appear in the 20.4.1.200 NMAC (incorporating 40 CFR §261) Appendix VIII list.

RFETS failed to further investigate the TICs as specified in the Permit because they improperly excluded valid TICs from consideration, based upon an erroneous interpretation of Permit requirements by CBFO. NMED further believes that there are adequate technical reasons for reporting and evaluating VOCs identified as TICs during SVOC analysis, and that it was premature for CBFO to tell RFETS to not add them to the target analyte list without further investigation.

In a related comment, NMED believes the Permittees should evaluate whether the current Permit language limiting the potential for exclusion of TICs from the target analyte list only to F-listed constituents is appropriate in light of permit modifications that added non F-listed waste codes.



Handwritten signature and date 1/6/03.

For reference, Permit Attachment B, Section B-3d states (page B-13, line 31 through page B-14, line 8):

"In the process of performing organic headspace and solid sample analyses, nontarget compounds may be identified. These compounds will be reported as TICs. TICs reported in 25% of the samples and listed in 20.4.1.200 NMAC (incorporating 40 CFR §261) Appendix VIII, will be compared with acceptable knowledge data to determine if the TIC is in a listed hazardous waste in the waste stream... TICs reported from the Totals VOC or SVOC analyses may be excluded from the target analyte list or a waste stream if the TIC is a constituent in an F-listed waste whose presence is attributable to waste packaging materials or radiolytic degradation from acceptable knowledge documentation. If the TIC associated with a total VOC or SVOC analysis cannot be identified as a component of waste packaging materials or as a product of radiolysis, the Permittees will add these TICs to the list of hazardous constituents for the waste stream (and assign additional EPA listed hazardous waste codes, if appropriate)... Refer to Permit Attachment B3 for additional information on TIC identification."

Similarly, Permit Attachment B3, Section B3-1 states (page B3-6, lines 19-37):

TICs that meet the SW-846 identification criteria, are reported in 25 percent of all waste containers sampled from a given waste stream, and that appear in the 20.4.1.200 NMAC (incorporating 40 CFR §261) Appendix VIII list, will be compared to acceptable knowledge data to determine if the TIC is a listed waste in the waste stream... TICs reported from the Totals VOC or SVOC analyses may be excluded from the target analyte list for a waste stream if the TIC is a constituent in an F-listed waste whose presence is attributable to waste packaging materials or radiolytic degradation from acceptable knowledge documentation. If a listed waste constituent TIC cannot be attributed to waste packaging materials, radiolysis, or other origins, the constituent will be added to the target analyte list and new hazardous waste codes will be assigned, if appropriate... If a target analyte list for a waste stream is expanded due to the presence of TICs, all samples collected from that waste stream will be analyzed for constituents on the expanded list.

# Observer Inquiry Form

Observer: Bob Thielke

Date: 3/6/03

Tracking No. \_\_\_\_\_

Steve Zappe

Discussion of Request: The CLP Functional Data Validation

Guidelines of Inorganic and Organic Analyses are being used  
to make data usability assessments and judgments for solids  
analyses. These documents are specifically intended for use as  
validation criteria for the CERCLA CLP analytical methods. Please  
specify how these guidance criteria (developed for OLMO + ILMO methods)  
are applicable to SW-846 methods and provide technical justification

ATL Response: for the use of validation criteria as the specified  
data usability criteria at RFETS

This Observer Inquiry has been forwarded to CBFO/CTAC  
for resolution between CBFO and NMED.

Observer: Accept Response ☒ Do Not Accept Response \_\_\_\_\_  
(Provide Reason)

SOB 3/2/03

Inquiry Closed: \_\_\_\_\_

ATL

Date

Attachment 2

NMED comments on Permittees' responses to NMED inquiries



## **Comments on Permittees' Response for VOC TICs Identified by SVOC Analyses**

NMED's Observer Inquiry Form, dated 3/6/03, was initiated during observation of the Carlsbad Field Office (CBFO) audit of the RFETS generator site. This observer form stated:

"NMED has a concern regarding limitation of TIC evaluation under the Permit. Relevant CBFO documents are Clarification CAO-00-065 and Hotline Question 119. See attached memo."

The attached memo questioned CBFO's assertion in Clarification CAO-00-065, Rev. 2 that TIC searches be limited to "include only those compounds being sought by analysis", because several volatile organic compounds (VOCs) were detected during semivolatile organic compound (SVOC) analysis using EPA Method 8270 but were not detected during VOC analysis using Method 8260. Some of the VOCs discovered during SVOC analysis were already on the VOC target analyte list, but other VOCs detected were not on the current VOC target analyte list. Additionally, the memo questioned CBFO's conclusion that VOC TICs need not be added to the SVOC target analysis list because "the VOC TICs are not listed/approved for Method 8270." The TICs in question met all of the criteria specified in the Permit for addition to the Method 8270 target list in that:

1. The TICs met TIC identification criteria as specified in the Permit Section B3-1,
2. The TICs were identified in 25 percent or more of all waste containers sampled from each of the homogeneous solids waste streams, and
3. The TICs appear in the 20.4.1.200 NMAC (incorporating 40CFR 261) Appendix VIII List.

NMED concluded the memo by stating:

"NMED disputes the conclusion to Clarification CAO-00-065, Question 2... RFETS failed to further investigate the TICs as specified in the Permit because they improperly excluded valid TICs from consideration, based upon an erroneous interpretation of Permit requirements by CBFO. NMED further believes that there are adequate technical reasons for reporting and evaluating VOCs identified as TICs during SVOC analysis, and that it was premature for CBFO to tell RFETS to not add them to the target analyte list without further investigation."

In short, NMED believed that the occurrence of VOCs within samples analyzed by SVOC methods required further consideration, and requested that CBFO respond to this concern.

Many of NMED's issues were not addressed in CBFO's response, rendering it inadequate. Specifically, CBFO did not address questions regarding the need for further investigation of the TIC detections, and did not address NMED's specific concern regarding CAO-00-65. Also, CBFO did not address the overarching issues regarding inadequate evaluation and assessment. Instead, CBFO's response dealt primarily with developing an argument to justify why a single VOC (1,1,2-trichloroethane) identified as a TIC during SVOC analyses should not be added to

the Method 8270 target list because it already appeared as an analyte in the Method 8260 target list in the Permit. CBFO's response failed to address all TIC compounds identified during SVOC solids analysis, including 1,1,1,2-tetrachloroethane, trichloroethylene, and 1,2,3-trichloropropane. CBFO's response also attempted to justify why SVOC extraction methods should not be used for VOCs in an apparent effort to explain why VOC analysis did not detect the suspect VOC compound identified during SVOC analysis (thus apparently preemptively addressing potential questions about the validity of the VOC analysis). This justification is irrelevant, as NMED's written inquiry did not question the validity of extraction methods.

NMED believes that CBFO's limited response to NMED's query regarding addition of VOC compounds to SVOC target analyte lists reflects an overly rigid interpretation of selected portions of the Permit (e.g., Table B-4, "Required Organic Analysis and Test Methods") with limited consideration of TIC reporting requirements and the flexibilities afforded in EPA Publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods". SW-846 provides statements that support the addition of these analytes to the Method 8270 target list:

- Chapter Two of SW-846, "Choosing The Correct Procedure", Section 2.1 indicates that flexibility within the methods is expected. Page TWO-2 of SW-846 indicates as follows:

*"Additional analytes, not included on the analyte list of a particular method(s) but needed for a specific project, may be analyzed by that particular method(s), if appropriate performance can be demonstrated for the analytes of concern in the matrices of concern."*

This passage of SW-846 supports the assertion that RCRA guidance allows analytes not normally associated with a particular method to be included in that method when appropriate for the matrix and analyte.

- The physical behavior/characteristics of the specific TICs in question (1,1,2-trichloroethane; 1,1,1,2-tetrachloroethane; trichloroethylene; and 1,2,3-trichloropropane) indicate that these analytes are amenable to analysis by Method 8270 for the solid matrices in question at RFETS. The predicted retention times for these TICs in Method 8260 are in the lower half of the retention time scale (i.e., all greater than 19.5 minutes), meaning that these analytes are less volatile than earlier eluting purgeable analytes. This observation is supported by the fact that these analytes were being detected on a routine basis in these RFETS solid wastes using the Method 8270 analyses. Therefore, it would be appropriate to add the TICs (particularly those not already on the Method 8260 list) to the Method 8270 target list.
- SW-846 sets the precedent for inclusion of some analytes on **multiple** method target lists. Specifically, SW-846, Chapter 2, Table 2-1 (Determinative Methods for Organic Analytes) shows several analytes on the target lists for **both** Methods 8260 and 8270 (e.g., 1,2-dichlorobenzene, naphthalene, pyridine, o-toluidine, 1,2,3-trichlorobenzene). These analytes are primarily halogenated aromatic compounds, as well as halogenated short

chain alkanes and alkenes. The TICs in question are also short chain halogenated alkanes and alkenes (chlorinated ethanes and propanes).

Further, neither the Permit nor SW-846 specifically mandate the *exclusion* of TICs from reporting requirements if that TIC is present in another analytical method list. Permit language in Attachment B3, Section B3-1 ensures that all TICs meeting the acceptance and frequency criteria will be added to the target list in which the TIC was identified. The TIC requirements in the Permit also address the following concerns:

- **Identification of constituents in unique matrices.** Many waste matrices within the DOE complex could have uncommon matrix characteristics that may alter the conventional capabilities of the prescribed analytical method to detect all expected compounds in a particular waste matrix. As such, there may be instances where analytes are more appropriately identified and reported using a method for which they were not included on the initial target list. This may be the case at RFETS for these matrices; that is, detection of the VOCs using an SVOC method could be a result of the specific type of matrices involved. Analysis for purgeable compounds under the Method 8260 target list did not indicate the presence of these TIC compounds, but subsequent analysis by Method 8270 revealed that these TICs were in more than 25 percent of the samples and often in significant quantities. The Permittees have not yet explained the presence of these TICs in the RFETS Method 8270 solids analyses and not the Method 8260 solids analysis in any documentation examined by NMED.
- **Adequate waste characterization.** The Applicants provided a reduced list of target analytes for the Method 8260 and Method 8270 analyses in the original permit application that were based upon the hazardous constituents expected to be in the waste. NMED accepted this reduced listing, but also believed it necessary to require TIC identification to ensure appropriate waste characterization, stating such in written testimony provided at the WIPP public hearing (1999):

“The TIC permit condition is essential to verify the correct identification of applicable hazardous waste codes for specific waste streams. TICs are indicators that a hazardous waste is present which was not identified in the Applicants’ list of hazardous waste codes for a specific waste stream. If a TIC is present above certain levels, the target analyte list for a specific waste stream may be revised, and hazardous waste codes may be added. The permit condition ensures that the Applicants do not dispose a waste stream without identifying all applicable hazardous waste codes.”

- Comprehensive TIC reporting continues to be a critical element of the WAP to ensure that hazardous constituents identified in Appendix VIII are identified and reported if they are unexpectedly found in a waste stream. Also, NMED’s written testimony regarding TIC analyses makes no allowances or considerations for excluding TIC compounds from analyte lists based upon the analytical method used to detect the constituent. Specifically, NMED made no allowances or Permit provisions to exclude TICs identified through Method 8270 analyses that were on the target list for Method 8260.

In conclusion, the response provided by CBFO did not provide adequate justification for excluding the TICs in question from the reporting requirements specified in the Permit. CBFO must resubmit the response taking into account the above commentary and ensuring that the questions posed by NMED are all addressed. This will ensure that RFETS has adequately addressed TIC identification with respect to solid samples that were analyzed.

NMED also encourages CBFO to assess whether current Permit allowances for addressing compound presence based on packaging, radiolysis, etc., should be revised to allow arguments for all listed compounds, not just F-listed compounds (i.e., Permit Attachment B, Section B-3d; Permit Attachment B3, Section B3-1). NMED testimony presented at the WIPP public hearing (March 1999) identified this exclusion as applying to all listed waste, and did not limit this to F-listed waste. NMED notes that when the Permit was originally issued, all listed wastes but one were F-listed wastes. Subsequent permit modifications expanded the table of permitted TRU mixed waste to include numerous U-listed wastes as well.

## Comments on Permittees' Response Regarding Validity EPA Functional Guidelines for WIPP Data Usability.

NMED's second Observer Inquiry Form, dated 3/6/03, was also initiated during observation of the CBFO audit of the RFETS generator site. NMED questioned whether the use of CLP Functional Data Validation Guidelines for Inorganic and Organic Analysis is appropriate with regard to data usability assessments for solids analysis, pointing out that the CLP are intended for use as validation criteria for the CERCLA CLP analytical methods. NMED asked for clarification regarding applicability of the CLP guidance to EPA SW-846 methods, and also asked for technical justification for the use of validation criteria as the specified data usability criteria at RFETS.

CBFO responded by stating that there are many commonalities between the CLP and WIPP programs, and use of the CLP Functional Guidelines is appropriate for a number of reasons:

- The EPA CLP is a tested, proven program and is legally defensible;
- The program is already in existence (at RFETS) and its use saves time and money;
- Implementing the addition of CLP Functional Guidelines has been done quickly and effectively at DOE sites; and
- The similarities between CLP and WIPP requirements are so fundamentally similar that use of the CLP Functional Guidelines is a legitimate enhancement of the WIPP program.

NMED agrees that the CLP program offers some common areas with respect to *data verification*, but still questions whether it is appropriate to use the *EPA CLP National Functional Guidelines for Data Review* (Organic and Inorganic) for establishing *data usability* criteria under this Permit. NMED concedes that the application of data validation vs. data usability is complicated by EPA's inconsistent use of terminology within their guidance documents related to data validation and data usability. Therefore, NMED turned to the general EPA guidance document, *Guidance on Environmental Verification and Validation (EPA QA G/8)*, for the definitions of data verification and validation, and to understand how these apply to data usability. In this document EPA acknowledges that the terms "data validation" and "data verification" are applied differently in various organizations; however, they provide the following definitions for data verification and validation that impart a clear understanding of data assessment activities that should take place in a data collection project:

"Data Verification is the process of evaluating the completeness, correctness, and conformance/compliance of a specific data set against method, procedural, and contractual requirements."

The Functional Guidelines primarily provide CERCLA project managers with guidance in performing data verification as defined in EPA QA G/8. Data verification, however, is not the same as data usability. EPA QA G/8 addresses usability in the context of how data that are verified through the Functional Guidelines, in conjunction with other guidance and professional judgment, are assessed to make usability decisions. The concepts of the Functional Guidelines for data verification have been adopted for other programs such as RCRA; however, EPA cautions against direct use of the Functional Guidelines for any program other than the CERCLA Contract Laboratory Program (CLP). Attachment B3 of the Permit establishes verification

criteria for the WIPP project. (Tables B3-2 to B3-9). Therefore, sites must follow the Permit-required data verification requirements, and need not invoke CLP Functional Guidelines for data verification activities (although commonalities may certainly exist).

EPA QA G/8 defines data validation as:

“Data Validation is an analyte and sample specific process that extends the evaluation of data beyond method, procedural, or compliance (i.e., data verification) to determine the analytical quality of a specific data set.”

EPA QA G/8 indicates that data validation focuses on particular data needs for a project as stated in a project specific document such as a QA Project Plan. It is this evaluation of data with respect to the needs of the project, among other considerations, that NMED considers to be data usability; that is, the EPA QA G/8 definition of data validation equates to data usability requirements. In context of the WIPP program, data may have different usability requirements. For example, the impact of bias on determination of a TCLP constituent would be more significant than the impact of that bias for the application of hazardous waste codes to F-listed wastes (which are not concentration based determinations). Definition of these WIPP project specific data needs (i.e., data usability requirements) has not been provided by CBFO to date and is not addressed in the Functional Guidelines.

EPA QA G/8 (in the context of the overall EPA QA structure for environmental data collection activities) specifies that the quality of the data should be determined through evaluation of data to methods, as well as other criteria. This is comparable to evaluation of QAOs that is discussed in the Attachment B3 of the Permit. The CBFO should define circumstances under which sites would or would not use data that did not meet QAOs, which is the role of *data usability*. Examples of data usability criteria that could be established include but are not limited to the impact of bias on results above and below regulatory thresholds and impact of holding times on data usability. CBFO has had to assess some of these data usability issues during audits (e.g. holding time issues at RFETS), but if data usability criteria had been previously established, the issue may not have been raised during the audit and would have been appropriately addressed prior to audit. Also, definition of these criteria is important to ensure consistency of professional judgment across each site and each project within a site. For example, if one site chooses to not use data qualified due to holding times and another site does use data qualified due to holding times, a consistency problem in interpretation of data, and potentially in the characterization process, would arise.

Based on the above definitions and discussion, it does not appear that questions regarding data usability were adequately addressed in the CBFO response. NMED notes that CBFO has not established data usability requirements that can be consistently applied to all generator/storage sites, and questions whether calling on the Functional Guidelines to ensure the consistent usability of data across all of the generator/storage sites would accomplish this goal. NMED has identified the following specific concerns in using the Functional Guidelines as a reference for establishing data validation or data usability criteria as defined in the Permit:

- The Functional Guidelines are intended to provide guidance on data validation, but only serve as an aid in making usability decisions. The introduction to the Functional Guideline for Inorganic Data Review states: "This guidance is somewhat limited in scope and is intended to be used as an aid in the formal technical review process. It should not be used to establish specific contract compliance (use of this document to evaluate data generated under Inorganic SOWs other than ILMO05.X is cautioned)." The introduction further states that: "The reviewer should note that while this document is to be used as an aid in the formal data review process, other sources of guidance and information, as well as professional judgment, should also be used to determine the *ultimate usability* of data, especially in those cases where all data does not meet specific technical criteria."  
[emphasis added]
- While the Functional Guidelines are concerned almost exclusively with the actions that should be taken to assign data validation flags, it includes very little discussion of actual usability of the data. This is not surprising because the Functional Guidelines state that other guidance is needed to make these ultimate usability decisions. Among the usability decisions that must be made but are not addressed in the Functional Guideline are the impact of positive and negative bias on the use of sampling data, the impacts of precision outliers on data usability, the usability impact of not meeting holding times, the usability of data that does not meet detection limits, and the usability of data that was not prepared or analyzed in accordance with specified methods.
- CBFO asserts, "The criteria [in Permit Section B3-1, Comparability] listed in the 9 total bullets for WIPP data are all contained, virtually verbatim, in the USEPA CLP Functional Guidelines review documents." However, the only bullet that is clearly applicable to the Functional Guidelines is the first bullet in Section B3-1 regarding the "[d]efinition or reference of criteria used to define and assign data qualifier flags based on Quality Assurance Objective results." NMED requires additional clarification as to how the remaining eight bullets referenced in CBFO's response are contained "virtually verbatim" in the Functional Guidelines.
- CBFO's assertion that the CLP and SW-846 methods have many areas of convergence is partially correct, for example, in the analysis of CLP VOAs and Method 8260. However, within these common elements, there are some fairly significant differences. For example, the SW-846 method allows for the use of a linear regression curve in the initial calibration if RSD criteria are not met, but the CLP methods do not allow the use of a curve under any circumstance. Another example is the lack of holding time criteria for soils under the CLP Methods, as the corresponding SW-846 methods have established holding times for solid matrices. As a result, there are many instances where the criteria established within the Functional Guidelines are not the same as those presented in SW-846 methods.
- In the few places where the EPA National Functional Guidelines for Data Review (Organic and Inorganic) provide usability guidance, that guidance appears to have been misapplied by RFETS. Examples of this misapplication include:

- Several samples that missed solids holding times for VOC analysis were found by RFETS to be usable because the Functional Guidelines indicated that qualifications due to holding times for solids should be made using professional judgment. The Functional Guidelines make this statement because soil holding times have not been formally established for the CLP method (which is the method that the Functional Guidelines are intended to serve as a data validation tool). However, SW-846 Method 8260 and 8270 have formally established holding times. As a result, the acceptability of holding times would not have been made if the assessment had been made with respect to SW-846, as required in the Permit.
- RFETS cited the EPA National Functional Guidelines for Data Review (Inorganic) as allowing results associated with poor matrix spike recoveries to be considered usable (i.e., results are not considered qualified). However, the EPA National Functional Guidelines for Data Review (Inorganic) actually indicates that results qualified due to poor matrix spike recoveries will remain qualified under all circumstances.
- NMED does not agree with CBFO's assertion that application of WIPP-specific guidance is not legally defensible, as several other agencies and programs use program/agency-specific guidance documents. The following list presents a few programs that have program specific data validation and data usability criteria that have been established for the major federal facility environmental programs:
  - Navy CLEAN
  - AFCEE (Air Force)
  - Army Corp of Engineers
  - Naval Reactors Facilities
  - DOE Environmental Programs (RFETS, NTS, Hanford, Mound, Fernald)

In conclusion, the CBFO response does not adequately address the questions posed by NMED with respect to data validation/verification and data usability (in part, this could be due to the different definitions that may be available, and the above discussion should help clarify NMED's intended questions with regard to data usability). The EPA National Functional Guidelines for Data Review (Organic and Inorganic) are probably not an appropriate document for determining data usability within this project because the Functional Guidelines are not intended to serve as the sole source of data usability and they do not include enough or appropriate guidance for use in the evaluation of SW-846 methods.